



## SEQUENCE LISTING

<110> *Johannes*

&lt;120&gt; Method For Diagnosis and Treatment of Haemophilia A Patients With An Inhibitor

&lt;130&gt; Sequence Nos 1-55 for 294-86 PCT/US/RCEII

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&lt;151&gt; 1999-05-07

&lt;150&gt; EP 98201543.0

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&lt;160&gt; 55

&lt;170&gt; PatentIn version 3.3

&lt;210&gt; 1

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;213&gt; Homo sapiens

&lt;400&gt; 3

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4

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<400> 23

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Ala Lys Lys Pro Gly Ser  
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20 25 30

Pro Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Ser Thr Lys Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Gly Ser Thr Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Asn Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys  
85 90 95

Ala Arg Gln Gln Asn Gly Gly Trp Tyr Glu Gly Pro Leu Leu Glu Pro  
100 105 110

Arg Pro Asp Ala Leu Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val  
115 120 125

Ser Ser  
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<210> 24  
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<400> 24

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr  
20 25 30

Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg

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<400> 25

Gln Val Gln Leu Leu Gln Ser Ala Thr Glu Val Lys Lys Pro Gly Ala  
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Ser Met Lys Val Ser Cys Met Ala Ser Gly Tyr Pro Phe Thr Ser Tyr  
20 25 30

Asp Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Trp Ile Ser Ile Tyr Ser Gly Asn Thr Asp Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Met Thr Asp Thr Ser Arg Arg Thr Ala Tyr  
65 70 75 80

Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Asp Gly Gly Gly Ala Tyr Glu Asp Val Trp Ser Gly Glu  
100 105 110

Tyr Pro Glu Tyr Tyr Ala Met Asp Val Trp Gly Gln Gly Thr Thr Val  
115 120 125

Thr Val Ser Ser  
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<211> 98

<212> PRT

<213> Homo sapiens

<400> 26

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu  
50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg

<210> 27  
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<400> 27

Gln Val Gln Leu Leu Gln Ser Ala Thr Glu Val Lys Lys Pro Gly Ala  
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Ser Met Lys Val Ser Cys Met Ala Ser Gly Tyr Pro Phe Thr Ser Tyr  
20 25 30

Asp Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val  
35 40 45

Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr His Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Arg Arg Thr Ala Tyr  
65 70 75 80

Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg

<210> 28  
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<213> Homo sapiens

<400> 28

Gln Val Gln Leu Leu Gln Ser Ala Ala Glu Val Arg Lys Pro Gly Ala  
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Pro Phe Thr Ser Tyr  
20 25 30

Asp Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Trp Ile Ser Ile Tyr Ser Gly Asn Thr Asp Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Met Thr Asp Thr Ser Arg Arg Thr Ala Tyr  
65 70 75 80

Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg

<210> 29

<211> 21

<212> PRT

<213> Homo sapiens

<400> 29

Gln Gln Asn Gly Gly Trp Tyr Glu Gly Pro Leu Leu Glu Pro Arg Pro  
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Asp Ala Leu Asp Ile  
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<213> Homo sapiens

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Glu Tyr Tyr Ala Met Asp Val

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<400> 31

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg

<210> 32  
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<213> Homo sapiens

<400> 32

Gln Val Gln Leu Leu Gln Tyr Ala Ala Asp Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Thr Ala Ser Gly Tyr Ile Phe Thr Ser Tyr  
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Ala Gly Phe Ala Gln Lys Phe  
50 55 60

Lys Gly Arg Leu Thr Leu Thr Arg Asp Thr Ser Thr Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Arg Asn Leu Glu Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Cys Asp Thr Thr Leu Leu Ile Trp Phe Gly Pro Ala Pro Tyr  
100 105 110

Asn Asp Ser Trp Gly Gln Gly Thr Leu Val  
115 120

<210> 33  
<211> 99  
<212> PRT  
<213> Homo sapiens

<400> 33

Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Gln Pro Gly Arg  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr  
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys  
85 90 95

Ala Lys Asp

<210> 34  
<211> 126

<212> PRT

<213> Homo sapiens

<400> 34

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Lys  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Asp Tyr  
20 25 30

Ala Ile His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val  
35 40 45

Ser Gly Val Thr Trp Ser Gly Thr Thr Ile Gly Phe Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr  
65 70 75 80

Leu Tyr Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys  
85 90 95

Ala Leu Pro Tyr Ile Asn Ser Ser Asn Tyr Arg Arg Gly Val Ala Ala  
100 105 110

Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser  
115 120 125

<210> 35

<211> 98

<212> PRT

<213> Homo sapiens

<400> 35

Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Arg  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val

50

55

60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Lys

<210> 36  
<211> 120  
<212> PRT  
<213> Homo sapiens

<400> 36

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg  
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Ser Leu Arg Leu Ser Cys Val Asp Ser Gly Leu Thr Phe Ser Ser Tyr  
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Ala Gly Leu Glu Trp Val  
35 40 45

Ala Val Ile Ser Tyr Asp Gly Asn Asp Lys Tyr Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Thr Ile Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Lys Asp Leu Ile Glu Ser Asn Ile Ala Glu Ala Leu Trp Gly Gln  
100 105 110

Gly Thr Leu Val Thr Val Ser Ser  
115 120

<210> 37  
<211> 98  
<212> PRT

<213> Homo sapiens

<400> 37

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ser Ser Ile Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg

<210> 38

<211> 126

<212> PRT

<213> Homo sapiens

<400> 38

Glu Val Gln Leu Val Lys Ser Gly Glu Gly Leu Val Lys Pro Gly Gly  
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Arg Tyr  
20 25 30

Asp Ile His Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ser Ser Ile Ser Ser Gly Gly Asn Tyr Ile Asp Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Val Val Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Phe Cys  
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Ser Ala Ala Thr Trp Arg Ala Phe  
100 105 110

Asp Ile Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser Gly  
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<210> 39  
<211> 366  
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gcacagaagt ttaagggcag actcaccttg accagggaca cttccacaag cacagcctac 240  
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<210> 40  
<211> 122  
<212> PRT  
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<400> 40

Gln Val Gln Leu Leu Gln Ser Ala Ala Asp Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Thr Ala Ser Gly Tyr Ile Phe Thr Ser Tyr  
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Ala Gly Phe Ala Gln Lys Phe  
50 55 60

Lys Gly Arg Leu Thr Leu Thr Arg Asp Thr Ser Thr Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Arg Arg Leu Glu Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Cys Asp Thr Thr Leu Leu Ile Trp Phe Gly Pro Ala Pro Tyr  
100 105 110

Tyr Asp Ser Trp Gly Gln Gly Thr Leu Val  
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<211> 366  
<212> DNA  
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<210> 43  
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ctgcaccagt tgcacac 378

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<212> DNA  
<213> Homo sapiens

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ccaggcgcgg ggctggagtg ggtggccgtt attcatacg acggaaatga taaatattat 180  
gcagactccg tgaagggccg attcgccatc tccagagaca atgccaagaa cacgctgtat 240  
ctgcaaatga acagcctgac aatagaggac acggctgtct attattgtgc gaaagatctc 300  
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<210> 45  
<211> 360  
<212> DNA  
<213> Homo sapiens

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<212> DNA  
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<400> 46  
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ccagggagg gcctggagtg ggtctcatcc atcagtagtg gtggtaatta catagactac 180  
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaacaa tgggtctat 240  
ctacaaatga acagcctgag agccgaggac atggctgtct atttctgtgc gagagatggg 300  
acgattttg gatcggccgc gacctggcgg gctttgata tctggggccg ggggacaatg 360  
gtcaccgtgt cgagt 375

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<400> 47

Glu Val Gln Leu Val Lys Ser Gly Glu Gly Leu Val Lys Pro Gly Gly  
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Arg Tyr  
20 25 30

Asp Ile His Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ser Ser Ile Ser Ser Gly Gly Asn Tyr Ile Asp Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Val Val Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Phe Cys  
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Ser Ala Ala Thr Trp Arg Ala Phe

100

105

110

Asp Ile Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser  
115 120 125

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<212> DNA  
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<400> 48  
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35 40 45

Gly Asp Ile Ile Pro Ile Leu Gly Thr Gly Asn Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr  
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Glu Leu Asp Trp Phe Tyr Ile Trp Gly Gln Gly Thr Met Val Thr Val  
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Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ser Ala Ile Ser Gly Ser Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr  
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Ala Lys

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25

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Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
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Ala Ala Ile Gly Gly Arg Ser Gly Thr Thr Phe Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Val Tyr  
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Leu Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys  
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caccc	366